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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,632	12/20/2004	Jean-Claude Dulac	0528-1136	4959
466	7590	05/08/2006	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			MCELHENY JR, DONALD E	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/518,632	DULAC ET AL.
	Examiner	Art Unit
	Donald E. McElheny, Jr.	2857.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1, 3-6, 13 is/are allowed.
- 6) Claim(s) 7-10, 14-20 is/are rejected.
- 7) Claim(s) 2,7-12 and 14-20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12/20/06 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 12/20/06.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

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1. The disclosure is objected to because of the following informalities: The specification lacks appropriate section headings.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) **TITLE OF THE INVENTION.**
- (b) **CROSS-REFERENCE TO RELATED APPLICATIONS.**
- (c) **STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.**
- (d) **THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT**
- (e) **INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC** (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or **REFERENCE TO A "MICROFICHE APPENDIX"** (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) **BACKGROUND OF THE INVENTION.**
  - (1) **Field of the Invention.**
  - (2) **Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.**
- (g) **BRIEF SUMMARY OF THE INVENTION.**
- (h) **BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).**
- (i) **DETAILED DESCRIPTION OF THE INVENTION.**
- (j) **CLAIM OR CLAIMS** (commencing on a separate sheet).
- (k) **ABSTRACT OF THE DISCLOSURE** (commencing on a separate sheet).
- (l) **SEQUENCE LISTING** (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

2. The written specification and drawings should be carefully reviewed and amended to put them into proper idiomatic U.S. English language.
3. The drawings are objected to as being informal for not meeting the requirements under 37 CFR 1.83 (a) and 1.84.

Applicant is reminded that each and every claim element must be found in the drawings as required by 37 CFR 1.83(a), 1.84(h) & (j), and MPEP 608.02(d), and also the drawings and specification must describe, show and correspond for all components shown or discussed as required by 37 CFR 1.84(p). The drawings must show every feature of the invention specified in the claims, including not only claimed structure (e.g. various means-plus-function) but also all inventive method, algorithm and program related steps within some form of flowchart(s). For mathematical related algorithms see 37 CFR 1.84(d). If a lack of correspondence between the claims and figures is merely a matter of applicant using different language in the claims than that found in the figures, then the intended correlation, basis and support for their equivalence must be shown for where claim elements exist within the figures and written disclosure.

Applicant is reminded the figures must also comply with 37 CFR 1.84(p)(5) to include unique reference numerals for each of different figure items depicted and a corresponding reference thereto in the written description. The same reference numeral may be used in different drawings, but if such occurs it must be to the identical component/item.

If amendment of the figures is required then note no new matter is permitted to be added to the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), and amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b), are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Claims 7-10, and 14-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Subject to the fourth paragraph of 35 U.S.C. 112, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers. The instant claims 7-10, and 14-20 fail to comply with such fourth paragraph, as they begin with something entirely different than a prior claim and then adds limitations including reference to a prior claim. Note these claims may also be deemed indefinite as they fail to comply with 112, second paragraph, since it cannot be determined what exactly applicant intends as

the claimed combination to be covered. Particularly where claims start with their preamble as directed to a different statutory class category and then depend upon a parent claim of different category; such as the software package dependent upon an apparatus or method claim, or the apparatus dependent upon the method claim.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-10, and 14-20 are objected to under 37 CFR 1.75(c), as based on a disclosure which is not enabling. As required by 35 U.S.C. 112, first paragraph, the claimed features and invention must be enabling disclosed by the specification as filed. The various claimed features of "means" of the "Device" claims, and the claimed features of software code steps, are not found in the Drawings, nor found explicitly named or defined in the written disclosure. Since these are claimed features they are thus critical or essential to the practice of the invention, but are not found enabling disclosed by the disclosure as filed.

6. Claims 11 is objected to under 37 CFR 1.75(c), as not being a proper sentence, and appears to be an incomplete claim. Correction is required.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2, 11, 12, 14, and 17 are objected to under 37 CFR 1.75(c), as being indefinite. As required by 35 U.S.C. 112, first paragraph, the claims must clear, definite and positive in their limitations. The phrase "for example" in claim 2 renders the claim

indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). Dependent claims fall for the same reason.

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 9, 10, and 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims do not meet the requirements as set forth in the recently updated "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" ("Guidelines"), see United States Patent and Trademark Office OG Notices: 22 November 2005.

These claims are directed to a "Computer software package". As defined by applicants' written specification this may be embodied as computer program code per se. Computer programs per se are not statutory subject matter under 35 U.S.C. 101 and per the latest "Guidelines". Also note applicants' specification lacks any disclosure of any specific software program, and not even a detailed flow chart from which a programmer of ordinary skill in the art could review and derive a software implementation therefrom; one is left to too much speculation as to how to implement such claimed subject matter of software. Note that any claimed feature must find not only basis in the written disclosure as filed, but adequate and enabling disclosure basis to one of ordinary skill in the art without undue experimentation or speculation.

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11. Claims 7, 8, and 14-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

See the above remarks. Since it is not explicitly clear and defined what the various "means" are supported by in the disclosure as filed, what they are intended to be, and at best may be mere software code implemented on a computer, they lack the criteria under the new "Guidelines", mentioned supra, to define statutory subject matter. Note that under the current interpretations of 35 U.S.C. 101 that mere calculations being performed on a computer are still considered abstract ideas and not falling in a safe harbor of statutory subject matter.

Claims that are directed either explicitly only to an abstract idea, or verbal description of a mathematical algorithm, or to a computer running an abstract idea algorithm process, and lack any requisite real world practical utility with either a physical transformation, or useful, tangible and concrete results, are considered non-statutory under the "Guidelines". Note that under current updated Office policy even when a physical input sensor supplies the real-world input data, or a computer system is recited, such does not place the claimed invention in a safe harbor of statutory subject matter, but the claimed algorithmic based invention is analyzed under the Guidelines to determine if it meets the required statutory subject matter conditions set forth therein. Mere calculations (whether using a computer or not) upon data from a real world sensor without any explicit recitation in the claim body of the real world useful, tangible and concrete results (i.e. real world practical utility, real world repeatable results, and real

world physical results), are still non-statutory subject matter under the above noted new 101 practice.

12. Claims 1, 3-6, and 13 stand allowed, as the prior art lacks the total combination of processing steps of claim 1, including the defining the parametric coefficients for each continuous local trace of the neighborhood the value of residual relative to the central continuous local trace and determining the additional parametric coefficients by minimization of a set of residuals on the earlier determined conditional neighborhood.

The prior art is cited of background interest.

The objected to dependent claims should be allowable with their parent claim 1 should their objectionable matters be corrected and they find adequate disclosure basis in the specification as originally filed. The rejected claims have not been further treated on the merits because of their clearly non-statutory basis and their gross indefiniteness as to what they are intended to include as invention.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald McElheny, Jr. whose telephone number is 571-272-2218. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoff Marc, can be reached on weekdays at telephone number 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Donald E. McElheny, Jr.  
Primary Examiner  
Art Unit 2857